

Houston Regional Group P. O. Box 3021 Houston, Texas 77253-3021 713-895-9309 http://texas.sierraclub.org/houston/

January 25, 2020

Oil & Gas EIS Project
Mr. Robert Potts
Natural Resources and Planning Team Leader
National Forests and Grasslands in Texas
2221 North Raguet
Lufkin, Texas 75904

Dear Rob,

The Houston Regional Group and Lone Star Chapter of the Sierra Club (Sierra Club) provide this fifteenth set of comments for scoping for the U.S. Forest Service (FS) oil/gas leasing environmental impact statement (OGLEIS) under the National Environmental Policy Act (NEPA) for the National Forests and Grasslands in Texas (NFGT).

Although the official scoping period is over, the Sierra Club will continue to send the FS documents and articles that relate to the OGLEIS. The Sierra Club has been told in the past that although there is an official scoping comment period, that scoping extends from the beginning of the scoping comment period until the draft EIS is released. There are additional articles that the Sierra Club provides to the FS with this letter.

1. "Growth of Texas jobs solid last year", Erin Douglas, Houston Chronicle, January 25, 2020.

This article says, "Local and state employment growth was held back in 2019 by the energy sector, which struggled particularly in the second half of the year. Mining and logging employment, which in Texas is dominated by the oil and gas industry, shed a net 9,800 jobs in 2019, according to employment data, down 4 percent. In 2018, the sector had added 24,400 jobs."

2. "Parsley is latest to rise dividends, cut costs", Jordan Blum, Houston Chronicle, January 25, 2020.

This article says, "Parsley Energy on Friday joined a growing number of companies in the industry paying higher dividends to boost Wall Street confidence and loyalty but often cutting spending to overcome stagnant crude prices."

3. "Few changes in safety rules since Okla. Blast", Jordan Blum, Houston Chronicle, January 24, 2020.

This article says, "Two years ago, an oil well near a small Oklahoma town exploded into a fireball that swept through a drilling rigs killing five in an accident deemed a needless catastrophe by federal investigators and casting a short lived spotlight on a lack of regulation and oversight across the oil and gas industry."

4. "Changes predicted in face of climate risks, Investment chair, Houston firms should lead the way on low-carbon economy", Erin Douglas, Houston Chronicle, January 23, 2020.

The article says, "Houston business leaders need to cut their companies' greenhouse gas emissions and lead the transition to a low-carbon economy".

5. "Changes predicted in face of climate risks, Search for cleaner energy could cut budgets for oil, gas exploration", Jordan Blum, Houston Chronicle, January 23, 2020.

This article says, "Some investors are questioning the need to explore at all given the vast discovered resource base yet to be developed."

6. "Climate change also poses a threat to oil's exploration budgets, report finds", Jordan Blum, Houston Chronicle, January 22, 2020.

This article says, "The largest energy companies are reducing exploration budgets and facing pressure form shareholders to conduct more exploratory drilling around the world, even amid growing reserves of oil and gas".

7. "Halliburton CEO Foresees shale challenge", Sergio Chapa, Houston Chronicle, January 22, 2020.

This article says, "The capital-intensive U.S. shale industry is facing its biggest challenge since a 2015 downturn that resulted in dozens of companies filing for bankruptcies, billions of dollars in losses and tens of thousands of layoffs as oil prices sputter, producers cut back and Wall Street investors become unwilling to float the bill, the CEO of the Houston oil field services company Halliburton said. A decade of horizontal drilling and hydraulic fracturing made the United States an energy powerhouse again, but crude oil prices tuck in the \$50-to-\$60 per barrel range over the past year have made shale unprofitable for most companies, resulting in substantial cuts to drilling and fracking activity in shale plays from Texas to Pennsylvania and North Dakota. That situation has placed tremendous pressure on oilfield service companies to slash prices for their products and services."

8. "Ride-haling is driving change in American car culture", Chris Tomlinson, Houston Chronicle, January 22, 2020.

This article says, "Americans are thinking about giving p their cars, a once unfathomable proposition that will change how we get around and diminish the oil industry's future."

9. "Schlumberger's \$10.1B loss may signal trouble for Houston", Sergio Chapa, Houston Chronicle, January 18, 2020.

This article says, "The troubled U.S. shale industry is not out of the woods – signaling potential trouble ahead for Houston's economy. Schlumberger, the largest oilfield service company, said Friday it lost \$10.1 billion in 2019, laid off 1,400 workers in the fourth quarter, closed facilities, pulled hydraulic fracturing fleets from the field and plans to sell assets. Experts say Schlumberger showing sets low expectation for other energy companies preparing to report year-end results and signals that they haven't adapted to oil prices in the range of \$50 to \$60 a barrel – too low for many to break even."

10. "Thumbs up, down", editorial, Houston Chronicle, January 18, 2020.

This article says, "Todd Staples, former Republican agriculture commissioner and senator, told reported in a conference call that "I think Texas is at risk if we don't have a very real, factual-based conservation about our climate, about our environment and about the progress that needs to be made". Staples is the president of the Texas Oil and Gas Association.

The Sierra Club appreciates this opportunity to provide these additional initial scoping comments about the social, economic, and environmental impacts of the OGLEIS. Thank you.

Drandt Mourcher

Sincerely,

Brandt Mannchen
Forest Management Issue Chair
Lone Star Chapter of the Sierra Club
Chair, Forestry Subcommittee
Houston Regional Group of the Sierra Club
20923 Kings Clover Court
Humble, Texas 77346
281-570-7212
brandt mannchen@comcast.net

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HOUSTON CHRONICLE . SATURDAY, JANUARY 25, 2020 . SECTION B ★★

● DOW: 28,989,73, down 170.36, -0.6% | ● S&P: 3,295.47, down 30.07, -0.9% | ● OIL: \$54.19, down \$1.40, -2.5% | ● NATURAL GAS: \$1.893, down 3.34, -1.7%

Uncertainty spreads with China's virus

Businesses around world feel impact as outbreak continues

By Paul Wiseman and Martha Mendoza ASSOCIATED PRESS

China's worst health crisis in years has sparked fear and uncer-tainty for businesses from North America to Asia that depend on

trade in the affected region. Experts say it's too soon to know how disruptive the crisis will prove. But it's already having

Stocks shaken

Dow drops I70 points as fears about deadly virus grow. Page B3.

an Impact.

McDonald's has shuttered res-taurants in five Chinese cities, including the inland port city of Wu-han where the crisis is centered. Shanghai Disneyland has tempo-rarily closed as a precaution. Re-strictions on travel and fears of flying to the region are threatening to depress demand for oil and jet fuel just as China's Lunar New Year is beginning. In a sign of China's vast eco-

ing squeezed. In Houston, Rockstar Wigs worries that production delays in China will hold up shipments.

So far, there are 830 confirmed cases of the virus and 41 deaths. Wuhan and 12 other Chinese cities are on lockdown, isolating a combined population of more than 36 million.

"Personally, I now cannot go to Wuhan to negotiate new orders, meet with new vendors, take forelgn companies for supplier visits

Outbreak continues on B7



passenger wears a protective mask at the Beiling West Railway Station, So far, at least 41 people have dled from the coronavirus.

TRANSPORTATION

737 Max woes still battering American and Southwest



Bocing now is estimating that the 737 Max will not return to service earlier than the middle of this year, a timeline about which airline executives aren't exactly confident.

The costs already have been high, and they continue to pile up for the airlines

By Kyle Arnold LLAS MORNING NEWS

ne grounding of Boeing's 737 Max cost American and Southwest airlines nearly \$1.4 billion in



Kelly said. Even with a settlement from Boeing, Kelly was clear the airline is losing op-portunities because of its smaller fleet.

"What's more concerning to me is that we were not able to grow," he said.

Growth of Texas jobs solid last year

By Erin Douglas

Despite a struggling energy sector, Texas enjoyed strong Job growth in 2019, ending the year with solid employment gains and an unemployment rate near historic lows, the Texas Workforce Commission reported Friday.

Texas employers added nearly 343,000 jobs last year, up about 3 percent, according to TWC esti-mates. In December, employment in the state grew by 29,800 jobs after gaining 33,000 in November. The unemployment rate was 3.5 percent, up slightly from Its historic low of 3.4 percent, but still indicating a very tight labor market.
"As we reflect on 2019, it is

clear that it was a strong year for the Texas economy," Bryan Daniel. TWC chairman and commissioner representing the public, said in a statement. "We look forward to continued growth in our great state throughout 2020."

Energy woes
State and local jobs statistics will almost certainly be revised down in March. Early Jobs data Is based on small samples, and data is revised when more information is available.

The Federal Reserve Bank of Dallas, which calculates expect-Job Growth continues on B6

Houston chopper

nost operating profits in 2015, and the pain isn't over yet. Boeing now is estimating

Boeing now is estimating the plane's return no earlier than the middle of 2020, a timeline airline executives aren't exactly confident in. While outlining their fourth-quarter earnings Thursday, leaders at American and Southwest talked about how the continued shortage of planes is disrupting the airline industry.

Dallas-based Southwest lost

Dallas-based Southwest lost "6 (million) to 7 million passengers" in 2019, CEO Gary



VI-Chin Lee / Staff photograpi

Dallas-based Southwest lost "6 (million) to 7 million passengers" in 2019, CEO Gary Kelly said.

canceled 10,000 flights in the fourth quarter. Expect that to continue, especially as summer travel season approaches. Planes are more full than ev-

Planes are more full than ever. American pushed its load factor to 84.7 percent last year. At Southwest, it was up to 83.5 percent. Load factor is the industry term for what percentage of seats on a plane are occupied.

cupted.
"It was the highest load factor the company has ever had in its history," said American's Max continues on B7

operators merging

By Andrea Leinfelder

Two Houston helicopter operators are merging in an all-stock deal that would create a new company with revenues of \$1.5 billion, positioning it to benefit from a recovering offshore drilling sector, the main focus of the company's hustness

Bristow Group and Era Group announced their plans Friday, part of an industry consolidation driven by the oil bust that ran from roughly 2014 to 2016 and hit the offshore sector particularly hard. The transaction is expected to close in the second half of this year, and the combined company will be called Bristow. Chris Bradshaw, president and CEO of Era, will lead it.

"At long last, consolidation is coming to one of the more beleaguered sectors of the oil patch," investment banking advisory firm Evercore said in a note about the merger, "and we believe today's news of Era combining with recently restructured Bristow is good news for the shares, and even better news for the petro-leum available sector."

good news for the snares, and even better news for the petroleum aviation sector."

Era is traded on the New York Stock Exchange. It closed Friday at \$10.24, up \$1.65 from its previous close.

Merger continues on B6

Parsley is latest to raise dividends, cut costs

By Jordan Blum

Parsley Energy on Friday Joined a growing number of companies in the industry paying higher dividends to boost Wall Street confidence and loyalty but often cutting spending to over-

often cutting spending to overcome stagnant crude prices.

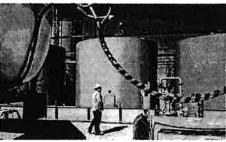
The Austin-based oil explorer said it would raise its dividend to S cents from 3 cents per share. Parsley launched its dividend program last year after going public in 2014.

Meanwhile, the company said it will reduce the top range of its 2020 capital spending plan to \$1.8 billion from \$1.9 billion as it buys Jagged Peak Energy of Denver. The \$1.65 billion deal announced in October will expand its position in the Permian Basin.

"We remain committed to an enhanced free cash flow profile in 2020, and, importantly, we have reinforced this commitment with a meaningful increase to our regular dividend program," Parsley Chief Executive Matt Gallagher sald.

But oil companies are often paying more dividends than their free cash flow can support, particularly as crude oil prices hover in the range of \$50 to \$60 a barrel. Areport released this monthly

Areport released this month by the Cleveland-based Institute for Parsley continues on B6



New York Times file photo

A worker waits as oil is transferred at a Parsley Energy facility near Midland. The company has joined others in the energy industry to raise dividends while cutting spending.

MERGER

From bage Bi

Bristow spokesman Adam Morgan said the combination is about scale, increased geographic foot-print and an enhanced fleet. The combined company, Morgan sald, will be financially stronger -Bristow emerged from bankruptcy last year - and will have more than 300 aircraft. It will have significant operations throughout the Americas, Nigeria, Norway, the U.K. and Australia.

"The merger better positions the combined company to ad-dress industry challenges, including oil and gas market volatility, and facilitates more efficient absorption of the significant fixed costs required to run an air carri-

er," Morgan said in an email. Both companies have a heavy focus on flying workers to off-shore oil and gas production platforms and drilling rigs. The com-bined business will be roughly 75 percent oil and gas, 18 percent government services and search and rescue missions, 5 percent fixed-wing aircraft operations and 2 percent other services, according to Evercore.



Bristow Group, one of whose helicopters is shown, is merging with Era Group.

"Another key positive for this merger is that it's being effectuat-ed when the key driver for indus-try demand, offshore drilling ac-

tivity, is undeniably in recovery mode," Evercore said, "and the fundamentals are much more certain than they were a year

andrea leinfelder@chron.com Twitter.com/a leinfelder

JOB GROWTH

From page Bi

ed revisions early, estimates that the state's job growth will be closer to 2 percent for 2019. In December, the bank calculated a huge downward revision to employment data for the second quarter in Houston, finding that employment in the region likely grew at a rate of less than half a percent, compared with early estimates of nearly 4 percent.

Local and state employment growth was held back in 2019 by the energy sector, which strug-gled particularly in the second half of the year. Mining and logging employment, which in Tex-ging employment, which in Tex-as is dominated by the oil and gas industry, shed a net 9,800 jobs in 2019, according to em-ployment data, down 4 percent. In 2018, the sector had added 24 400 lobe

Much of the sector's 2019 losses happened in the second half of the year as energy investors tightened their purse strings amid meager returns and oil prices mostly hovered between \$50 and \$60 a barrel, barely a break-even point for many com

Mining and logging shed 4,800 Jobs in the state in December, the largest month-overmonth loss since April 2016 when the oil and gas industry was reeling from an oil bust.

lesse Thompson, a senior business economist at the Dallas Fed. speaking at the Houston West Chamber of Commerce economic conference Friday, said that while he expects the energy sector to stabilize in 2020, it won't provide much of a boost to the local economy this year because companies are likely to have trouble financing new projects.

"(Energy) companies are go-

ing to have to fund everything they do this year out of cash flow," Thompson said. "To the

extent that anyone makes a de-cent amount of money this year, they're going to put that money into paying investors and paying

their lenders." Still, he said, energy is also unlikely to be as much of a drag on Houston's economy this year as it was in 2019 - as long as oil prices don't go any lower than they are now. Energy companies responding to a survey conducted by the Dallas Fed largely report-ed that they'd be able to finance planned projects with current crude oil prices.

"If (oil prices) were to collapse or go to the low \$50s, maybe we're in a different story," Thompson said.

Crude oil settled at \$54.19 Friday in New York.

Houston hiring more slowly

The Houston region finished 2019 by adding 6,700 jobs in December, a continuation of strong gains in employment but a slow down when compared with recent months. In November, the region added 9,400 jobs.

The local jobless rate was 3.6 percent in December.

Over the year, local employ-ment grew 3 percent, adding 90,000 Jobs in 2019.

Thompson said he expects that growth rate to be cut nearly in half, to about 1.6 percent, when revisions to 2019 employ numbers are made March.

projects growth in Houston to be between 1.8 and 2.3 percent in 2020 – "healthy job growth," he said, as long as trade policy con-tinues to stabilize, the national economy remains strong and oil prices don't nose dive.

"Slowing down from strong growth means about average growth in 2020," Thompson sald. "We will see what happens with trade policy."

erin.douglas@chron.com Twitter.com/erinmdouglas23

PARSLEY From base Br

Energy Economics and Financial Analysis found that five of the largest oil majors - Eoxon Mobil, Chev-ron, Royal Dutch Shell, BP and To-tal - spent \$536 billion on share-holder dividends and stock buybacks since 2010 while bringing in lust \$329 billion in free cash flow

"The oil majors are consistently underperforming the market and believe that shareholders won't notice, as long as they re-ceive generous dividends," sald Tom Sanzillo, co-author of the report and director of finance for the institute, a think tank that supports renewable energy.

Among others boosting dividends in the past year is Conoco-Phillips, which in October said it would raise its dividend by 38 percent, to 42 cents per share from 30.5 cents a share. The payout will cost the Houston oll and gas pro-ducer about \$500 million each

CEO Ryan Lance acknowledged at the time that ConocoPhillips is operating in a mature industry that requires cutting spending while building investor loyalty with higher dividends and stock buybacks

"Our industry faces a flight of sponsorship by investors," Lance has said. "This sector will struggle for relevance unless the industry can create value on a sustained ba-

Also last year, Exxon Mobil, one of the companies cited in the Energy Economics report, raised its quarterly dividend by 6 percent to 87 cents from 82 cents. During the previous five-year period, Exxon Mobil's dividends rose by 38 per-

But Exxon was criticized by Moody's Investors Service Inc., which lowered the company's credit outlook to negative in No-vember as a result of Exxon's "substantial negative free cash flow."

"The company's high level of growth capital investments cannot be funded with operating cash flow and asset sales at projected levels given ExxonMobil's substantial dividend payout," Moody's sald at the time.

jordan.blum@chron.com

Why Do I Hear... But Not Understand?

Study by Cambridge University in England Reveals Key Answer



cells. As a result, the patient's usable hearing cells receive amplification, thereby improving speech understanding in noise.

"We are employing a like method in our diagnostic sound booths using a sound field speech in noise procedure", said Chris Bisel of Bisel Hearing Aid

Hearing **Evaluation**

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Until recently, there was no practical way to identify dead regions of hearing cells in the ear. However, a new British-developed procedure using standard test equipment now allows for identification of dead hearing cell regions. The study suggests that the presence or absence of dead regions may have serious implications in the fitting of hearing aids.

This research reveals that amplifying dead cells is a mistake which will result in poorer speech understanding in noise. A new type of digitally programmable microcircuit is now being released from Audibel – one of the world leaders in nanoScience technology – that can be programmed to bypass the dead

Center. "This test simulates hearing in a noisy crowd. We are able to determine maximum speech understanding by frequency shaping this new hearing

aid." The results have been phenomenal.

These new products come in all shell sizes, including the smallest digital models, with low introductory prices available. During its release, Bisel Hearing Aid Center is offering this new frequency-shaping hearing instrument on a 30-day satisfaction trial. "Your satisfaction is absolutely guaranteed," Bisel said.

If you hear, but are having trouble understanding conversation, take advantage of the complimentary demonstrations offered this week. Call Bisel Hearing Aid Center today to schedule your no-obligation appointment.

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A 'Fantasticks' launch for new theater



Harden to make sixth All-Star start PAGE OF

HOUSTON CHRONICLE

FRIDAY, JANUARY 24, 2020 · HOUSTONCHRONICLE.COM · VOL. 119, NO. 103 · \$2.00 ***

TRUMP ROLLS BACK CLEAN WATER RULES



Photos by Mark Mulikan / Staff photosraphe

Camden Smith, 2, points out imaginary alligators to his father, Chris, at the Pine Brook South Wetlands in Clear Lake,
The park surrounds a "prairie pothole," a unique form of wetland that's losing federal protection under a new EPA rule.

Critics worry change of regulation raises flood, pollution risk in Houston

By Perla Trevizo STAFF WRITER

The Trump administration has finalized a clean-water rule that it says strikes a balance between protecting the environment and the economy, but critics say the change will put Houstonians at greater risk for flooding and threaten the drinking water for more than 11.5 million Texans.

The rule announced by the Environmental Protection Agency eliminates Clean Water Environmental Act protections for up to half of the nation's wetlands and onefifth of the streams across the country under a narrower interpretation of which water-ways qualify for federal protec-



An egret takes off from a ditch near a prairie pothole in San Leon. Half of the nation's wetlands are set to lose protection.

tion.
"EPA and the Army are providing much needed regulatory certainty and predictability for American farmers, landowners economy and accelerate criti-cal infrastructure projects," EPA Administrator Andrew

Wheeler told a gathering of home builders in Las Vegas. Court challenges had led to the Obama-era rule being put on hold in Texas and 27 other states. Still, Arma Parrell-Sherman, a clean water associate with Environment Texas, said the return to less-stringent rules will leave waterways from Barton Creek to Galveston Bay vulnerable to pollution and Water rule continues on A6

Few changes in safety rules since Okla. blast

China isolates 5 cities to fight virus

Lockdowns affect over 22 million; student at Texas A&M may have it

STAFF AND WIRE REPORTS

BEIJING – Chinese authorities Thursday moved to lock down at least five cities with a combined population of more than 22 million – more people than New York City, Los Angeles and Chicago put together—In an unprece-dented effort to contain the deadly new virus that has sickened hundreds of people and spread to other parts of

On Thursday, the first suspected case in Texas was announced: a Texas A&M student who had traveled in the last two weeks to Wuhan, China, the district where the virus originated. The student went to a hospital emergency department in Bryan-College Station with mild symptoms Wednesday evening, according to the Brazos County health district.

The student is in isolation at home, not hospitalized.

"He presented at the ER out of concern because he'd been in Wuhan, not because of the severity of his symp-toms," said Dr. Eric Wilke, health authority for the Brazos County health t. "He's doing well."

Wilke said the viral samples taken

Feds say inmate filed bogus liens to retaliate

Man accused of trying to get back at officials from 2005 drug case

Ry Gohrielle Banks STAFF WRITER

Two years after five died in well explosion, substantial improvements yet to happen

By Jordan Blum

Two years ago, an oil well near a small Oklahoma town exploded into a fireball that swept through a drilling rig, killing five in an accident deemed a needless catastrophe by federal investigators and casting a short-lived spot-light on a lack of regulation and oversight across the oil and gas industry.

The accident involving a Houston drilling company was the industry's deadliest since the Deepwater Horizon tragedy 10 years ago, but the re-sponse to the Oklahoma explosion has been far less urgent. While the Gulf of Mexico ex-plosion, which killed it people, spurred a drilling moratorium and a wave of new regulations, the Oklahoma disaster entered the national headlines for a brief spell and was quickly fororier spell and was quickly for-gotten – even after the U.S. Chemical Safety and Hazard Investigation Board found widespread fallures and a woe-ful lack of safety standards and rules in the onshore drilling

sector. What has happened since then? Not much.
"Onshore is sort of a black

hole," said Lauren Grim, a su-Explosion continues on A6



The drilling rig explosion near Quinton, Okla., in 2018 was the industry's deadliest since the Deepwater Horizon blast.

Noel Extinia was serving a 50-year term at a federal lockup in Pennsylva-nia when he allegedly began filing multimillion-dollar liens against a South Texas Judge and prosecutor who'd put him behind bars. Exinta, 49, was in Houston on Wed-

nesday on charges he used fraudulent liens to retaliate against two federal officials. His lawyer, Richard Kunian-sky, who previously tried a similar case, said it was too soon to assess Ed-nia's motivations in filing the documents, but he could plausibly argue that such a client was seeking recourse after unsuccessful attempts to challenge his sentence. In other words, the prisoner wasn't retaliat-ing, he was merely seeking an alternative, if preposterous, means in an ob-scure jurisdiction to get the judge to

"There are inmates who are prolif-ic at this," Kunlansky said, and there is

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WATER RULE

From page At

degradation.

"As unprotected wetlands become degraded or pawed over, they will no longer help filter out pollution before it reaches our streams, springs, rivers and aquifers," she said. "Galveston Bay is already facing dangerous oil spills and pollution from industry along the coast; degrading the streams and wetlands around it will only make that problem worse."

The shift comes five vears after the Obama administration expanded federal clean-water protections to smaller streams and wetlands, including intermittent streams and underground water passages. It was a move meant to bring uniformity, but it instead led to several law-suits, including one by Texas, Mississippi and Louisi-ana, along with a coalition and Industry of farm groups, that called it feder al overreach and overly broad.

The Trump administration's final version – four months after it announced the repeal of the rule – represents a major rollback of the Clean Water Act, enacted in 1972. The change will have a major impact on southwestern states, allowing landowners and developers to potentially dump pollutants, including pesticides and fertilizers, into those waterways or fill in wetlands for construction projects.

projects.
The climate here is conducive to having floods followed by droughts, Farrell-Sherman said, which leads to periods of flowing water followed by it drying out. "Just because those streams don't flow consistently, it doesn't mean they aren't real streams we shouldn't protect," she said.

The group estimates about 450,000 miles of ephemeral streams across the state could be affected.

Another potentially adverse impact in Texas could be the loss of wetlands, ad-



Hark Mulligan / Staff photographer

A new rule from the Trump administration, which is set to be a major rollback of the Clean Water Act, is supposed to go into effect 60 days after it's published in the Federal Register, although expected lawsuits could delay its implementation.

vocates sald, which would increase the region's risk for flooding and hurt wildlife. Under the new rule, wetlands that are not right next to protected waters will also lose federal protection.

"With Texas made up of mostly privately owned land, having rules to require developers to identify and mitigate the destruction of these natural land-scapes is critical," said Jordan Macha, executive director for the Bayou City Waterkeeper. "The removal of basic watershed protections has real potential to cause significant harm to surrounding communities and those living downstream."

Expanses of wetlands around Trinity Bay, the San jacinto River's east and west forks and Cedar Bayou are vulnerable to rapid development, particularly under the administration's new rule, she said.

iew ruie, sne said. Environmental adv cates are not alone in their opposition to the new rule. Last month, the EPA Science Advisory Board posted a draft letter saying the revised rule decreased protection for the country's waters and didn't support "the objective of restoring and maintaining the chemical, physical and biological integrity" of these waters."

The board said it neglected established science, specifically pertaining to the connectivity of groundwater to wetlands and adjacent major bodies of water.

"These changes are proposed without fully supportable scientific basis, while potentially introducing substantial new risks to human and environmental health," they added. The letter was signed by the board's chair, Michael Honeycutt, who is also Texas' top toxicologist and known for being industry-friendly.

After September's announcement that the administration was repealing the rule, several Texas Republicans and industry groups, including builders and farmers, praised the move as another success in breaking down Obama's "misgulded regulatory regime" that hurt the state. The new rule is Trump's latest effort to repeal or weaken nearly 100 environmental rules and laws, according to a New York Times'

"After decades of landowners relying on expensive attorneys to determine what water on their land may or may not fall under federal regulations, our new Navigable Waters Protection Rule strikes the proper balance between Washington and the states in managing land and water resources while protecting our nation's navigable waters, and it does so within the authority Congress provided," Wheeler, the EPA head, said at the industry

event Thurdsay. Gary Joiner, a spokesperson for the Texas Farm Bureau, said the new rule provided some regulatory certainty and clarity for farmers and ranchers in Texas, which they had not had under the 2015 rule.

oer the 2015 rote.

Joiner sald that farmers and ranchers, particularly in Southeast Texas, had been asking "What does this mean?" and "What if different areas of my property are now impacted by this role?"

They wondered whether ditches in low water spots on their property were now under jurisdiction of the Clean Water Act and whether practices of applying crop protection chemicals or how land was cultivated was still allowed, he said.

There are about 250,000 farmers and ranchers in the state, according to Joiner, with i in 7 workers in Texas employed in the agriculture industry.

"Farm and ranch familiars are also according to the serious according to

lies live on the land, drink water from wells located there and depend on clean water for growing crops and raising livestock. Clean water is also important for wildlife, which has become a critical part of many modern farming and ranching enterprises," said Russell Boening, president of the Texas Farm Bureau. "Managing water use is a process developed by decades of best management practicates."

The new rule is supposed to go into effect 60 days after it's published in the Fereral Register, although expected lawsuits could delay it's implementation.

Advocates say now is not the time to roll back protections.

"Reducing protections for wetlands is a recipe for disaster when the next harvey, Innelda or other heavy rainstorm that has become a regular part of living in this region of Texas comes our way," Macha sald.

peria.trevizo@chron.com

EXPLOSION

From page A1

pervisory investigator at the Chemical Safety Board. "There's not really a whole lot of rules and regulations for safety on the state and federal levels, and that's what we're trying to correst."

rect."
The safety board's report was scathing. It found that the companies planned poorly and cut corners, resulting in myriad contributing factors to the five deaths, including a failed blowout preventer, a

dent within a few months. In Just over a year, the federal Minerals Management Service, which had overseen offshore development, was spllt into three agencies with distinct oversight and regulatory capabilities: the Bureau of Coean Energy Management, the Bureau of Safety and Environmental Enforcement and the Office of Natural Resources Revenue.

The BP accident, of course, was the largest offshore oil spill in the nation's history, spewing 3.2 million barrels of oil from tled lawsuits with Red Mountain and Pattersor-UTI and signed nondisclosure agreements. A trial in Oklahoma is underway this week as the family and friends of Ray and Risk pursue claims against NOV, which has refused to ac-

cept blame in the accident.
The families of the victims declined comment, citing ongoing litigation and the settlements. NOV did not respond to messages seeking comment.

In his opening statements in court, attorney David Rumley noted that Risk was new on the Job as



Associated Press file phot

CSB investigator Kristen Kulinowski, left, said the board's recommendations "take a lot of time."

was used in the well, NOV

But enacting new laws

API spokesman Reid Porter said the oil and gas industry is safer than ever and constantly working to improve, including updating its industry safety standards for drilling and wellservicing operations last year.

"We are continuing our engagement in industry work groups to consider the recommendations from the Chemical Safety Board since the incident," Porter said. "We regularly update industry standards through ongoing research, training and information sharing."

muted alarm system, lapses in well monitoring, inadequate employee training and not enough emergency exits in the driller's cabin, called the doghouse, where the work-

ers were trapped.

The Chemical Safety
Board also found that state
and federal safety laws governing drilling are inadequate, as are the standards
adopted by the American
Petroleum institute, the industry's trade group. Federal and state regulators
and API are beginning to
consider the safety board's
recommendations, which
range from better well control rules to tougher equipment standards to improved employee training,
but bureaucracy moves
slowly, Grim said. More
substantial changes could
still be a couple years away.

still be a couple years away.
"These recommendations do take a lot of time,"
Grim said. "It's really hard
to say how it will turn out
until we see all the response
as and the end results."

In contrast, the federal government imposed the drilling moratorium less than two months after Deepwater Horizon. Executive orders to increase oversight of the ocean and coasts were issued within three months while a national commission reported its findings on the acci-

Louisiana bayous to Florida beaches before the well finally was permanently sealed five months after the initial loss of life.

Houston firms involved

The environmental impact of the Oklahoma explosion pales in comparison to the Deepwater Horizon tragedy, but the slowmoving regulatory process means the risk of a repeat incident.

The onshore well was owned by a small Oklahoma City Brm, Red Mountain Energy, but the drilling rig was owned and operated by Patterson-Uri Energy, a Houston oil field services company. Another key contractor was the Houston company National Oilwell Varco, called NOV, which monitored the drilling fluids used to keep the well pressures stable and the drill bit moving along.

along.
Killed in the fire were
Josh Ray, 35, of Fort Worth;
Cody Risk, 26, Wellington,
Colo.; and Matt Smith, 29,
McAlester, Okla.; all of
whom worked for Patterson-UT; and Parker Waldridge, 60, Crescent,
Okla.; and Roger Cunningham, 55, Seminole, Okla.,
who worked for other con-

tractors.

Most of the families of the dead workers have set-

a tioorhand, connecting pipes, doing the heavy lifting and keeping the site organized. He was the primary parent to three children.

Ray's daughter, Ava, counted the days until her father would return home to Fort Worth on an oil derrick magnet on the refriger-

"She'd write in the day of when her daddy's coming home," Rumley told the jurors. "He was coming home in two days to see his family."

Rumley argued that NOV used drilling fluids that weren't heavy enough to keep the natural gas from flowing out of the well. He told the court that NOV didn't provide enough staffing and that the workers didn't have enough training. He alleged "reckless disregard," saying all the companies were at fault but only NOV has refused to accept responsibility.

NOV has responded in court that it was at the bottom of the chain of command and didn't bear any responsibility. All the decisions were made by Red Mountain, the company said, and the drilling fluids cited by Rumley as a smoking gun were destroyed in the fire. The fluids tested after the fact weren't necessarily reflective of what

sald

What comes next?

Responses to the report by the companies and Oklahoma and their recommendations to the Chemical Safety Board are expected to be completed this year.

A spokeswoman for the federal Occupational Safety and Health Administration said it is taking the report's recommendations under advisement and that
potential rule-making
changes are on the agenda
under "long-term actions."

The first report back is

The first report back is likely to come from the Oklahoma Corporation Commission, which sets regulations for oil and gas drilling in the state. The commission's report should be finished in February, spokesman Matt Skinner said.

"This is a complex issue looking at all the state laws and government regulations," Skinner said. "It's a terrible tragedy obviously, but it doesn't fit neatly into the current box of state

The Oklahoma commission has limited jurisdiction, so any substantial new rules and regulations recommended by the state commission would require approval from the Oklahoma Legislature.

would take additional time and might never come to fruition.

Patterson-UTI plans to file its response report and recommendations later this year. The Houston driller said it immediately evaluated which policies and procedures could be improved. It has enhanced well control policies, among other steps, and created a new technical training program that it has shared with the industry to help prevent a similar accident from happening again.
"We continue to remem-

"We continue to remember the five men who lost their lives in this accident, and our deepest sympathies remain with their familles," the company said in a statement. "While nothing can make up for the tragic loss of life, we reached mutually agreeable settlements with each of their familles. We rewain committed to preventing an accident like this from ever happening again."

The American Petroleum Institute, which is the oil and gas industry's arm for setting technical standards as well as political lobbying, sald it is still working through its responses to all of the Chemical Safety Board's recommendations. Adam Peltz, a senior attorney with the Environmental Defense Fund on oil and gas regulations, said he hopes Oklahoma will adopt better safety rules for well control procedures and those improvements would spread to other states.

Federal authorities need better oversight over oll and gas drilling, Peltz said, but much of the regulatory details needs to remain with the individual states because geology and topography varies across the country. States should have the expertise to set rules for drilling in their geological formations from shale rock to sait domes, from gas-laden Appalachla to the oil-heavy Permian.

Peltz said most well blowouts don't have fatalties but still release enormous amounts of greenhouse gases. They frequently go overlooked. Texas, for instance, records anywhere from 10 to 30 instances a year of well blowouts or well control problems.

problems.
"When there's an accident of this magnitude with this many fatalities, it's a great tragedy," he said, "and we're grateful they're as rare as they are."

jordan.blum@chron.com twitter.com/jdblum23

● DOW: 29,186.27, down 9.77, 0% | ● S&P: 3,321.75, up 0.96, 0% | ● OIL: \$56.74, down \$1.64, -2.8% | ● NATURAL GAS: \$1.905, up 1.0¢, +0.5%

2 Houston energy firms defy shale slump



Oil-field service company Baker Hughes reported a \$128 million profit for the year.

How Kinder Morgan, Baker Hughes turned out profits in 2019's downturn

By Sergio Chapa

Two Houston-based energy companies finished 2019 in the black even as some producers and service companies are being ham-mered by multibillion dollar

losses amid the shale slump. Pipeline operator Kinder Morgan reported a \$2.2 bil-lion profit in 2019 and oil-

field service company Bak er Hughes reported a \$128 million profit for the year. The figures marked a year-over-year increase of 48 per-cent for Kinder Morgan but a 34 percent decline for Bak-

financial results come as crude oil prices have been stuck in the range of \$50 to \$60 per barrel for more than a year, decreas-

ing demand for hydraulic fracturing services in the U.S. and hurting producers and service companies. Schlumberger, the largest oil-field service company in the world, reported a \$10.1 billion loss in 2019 while No. 2 Halliburton closed the

As a pipeline operator that makes most of its revemue from transport fees, Kinder Morgan owns some oil wells but was largely unaffected by commodity prices and the shale downturn. Baker Hughes, on the other hand, sold off its hydraulic fracturing business in January 2017 and has steered products and services from shale.

"Looking out on a longer-term basis, we see a number Profits continues on B6

Bottling plant site may be ready for project

By Nancy Sarnoff stapp writer

A redevelopment of the M-acre Coca-Cola bottling plant near West University could be on the horizon with the soft-drink maker's lease on the property set to expire at the end of April, county property records show. Houston developers Frank

Liu and Ronny Hecht pur-chased the Inner-Loop property at 2800 Bissonnet last May and leased it back to the soda maker for a year. Liu and Hecht each pur-

chased a 50 percent interest in the site through entities called Bellefontaine Stella Link and Quasar West U, respectively.

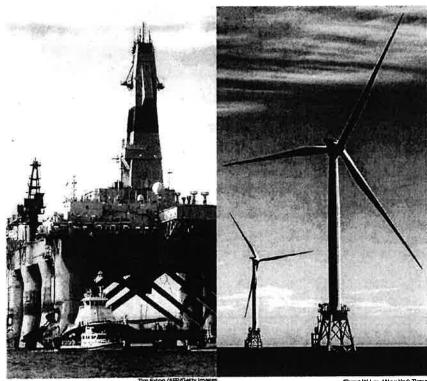
spectively.

Liu is one of Houston's most prolific developers of townhomes through his company inTown Homes. He also has a commercial property operation, Lovett Commercial. cial, which develops shopping centers and is currently redeveloping the downtown post office property at 401 Franklin St. Hecht has a general con-tracting business specializing

in apartment construction.

They pair purchased the Bissonnet property from Co-ca-Cola Southwest Beverages. The plant dates to at least 1950, when Coca-Cola began operating there. The site contains a series of industrial and manufacturing buildings to-

Changes predicted in face of climate risks



Will offshore oil and gas exploration give way to offshore wind?

Chanst W. Lee / New York Times

taling 343,48 square feet.

Through a spokesman, Liu sald there were no additional details to share at this point. CBRE was tapped to sell the

property, among other Coca-Cola facilities, in 2018 when the Dallas-based franchisee announced a plan to consolidate operations in a new i mil-lion-square-foot manufacturing and distribution facility in north Houston's Pinto Busi-

ness Park.

The brokerage firm did not put an asking price on the Bissonnet property, which Harris County valued at \$50.5 million in 2019.

nancy.sarnoff@chron.com twitter.com/nsarnoff

Search for cleaner energy could cut budgets for oil, gas exploration

By Jordan Blum STAFF WRITER

he growing risk of climate change and the move toward cleaner energy sources are threatening to slow spending on tradition-al oil and gas exploration worldwide, a new report

says.
The largest energy companies are cutting explora-tion budgets and facing shareholder pressure to conduct less exploratory drilling as the world's oil and gas reserves grow and crude prices stagnate, according to energy research firm Wood Mackenzie.

"Some investors are questioning the need to explore at all given the vast discovered resource base yet to be developed," said Alana Tischuk, of Wood Mackenzie's global explora-tion team. "The move from Big Oil to Big Energy is un-Transition continues on B6

Investment chair: Houston firms should lead the way on low-carbon economy

By Erin Douglas

ouston business leaders need to cut their companies' greenhouse gas emissions and lead the transition to a low-carbon economy, the chairman of the Houston investment company Tudor, Pickering Holt & Co., said Wednesday.

Bobby Tudor, speaking at the annual meeting of the Greater Houston Partner-

ship, told the hundreds of Houston business leaders at the event that local executives need to publicly commit to lowering carbon emissions in their businesses and work to develop new technologies - such as carbon capture and alternative energy - to re-duce green house gas emis-sions in the atmosphere.

In the energy industry, Tu-dor said, companies need to work to lower emissions of methane, the main compo-Tudor continues on B6



Small companies take initiative to fight flu

By Joyce M. Rosenberg

NEW YORK - As this winter's flu outbreak intensifies, small busi-ness owners try to keep their com-

panies from being overwhelmed by employee absences. At Gold Medal Wine Club, any surfaces people are likely to touch, including the coffee machine, wa-ter dispenser and door knobs, are wiped down and there's hand san-itizer on every desk. The II staffers are expected to sub for one another when someone's sick, something that's crucial when orders for wine pour in.

"We want to be sure our phones are answered," says Kelsey Ches-terfield, marketing manager for the Santa Barbara, California, company. "If some people are out sick, others have to come in earli-

The flu can be devastating for small businesses. If a company with just a handful of employees has two or more out at once, it can be difficult or impossible to get the work done. So owners pay for flu shots and use disinfectants in hopes of keeping everyone healthy and urge sick staffers not to come to work. And, as Gold Medal Wine Club does, they train and reassign staffers to cover for sick colleagues.

"Nothing harms our ability to hit deadlines more than a spreading flu through the ranks of our staff members," says Alex Kehoe, co-founder of Caveni, a website design company that has 10 em-ployees at its Philadelphia headquarters and more than 10 others who work remotely.

When Kehoe's staffers start hav ing flu symptoms, he encourages them to stay home. Kehoe follows his own advice; he was working at home with a bad cold while being interviewed by phone for this sto-

This flu season started early, and all but two states reported widespread outbreaks by the week ended Jan. II, according to the U.S. Centers for Disease Control and Prevention, From 1982 to 2018, the flu most often peaked in February, so there's a good chance the rest of



Jo Trizila, left, president and CEO of Trizcom Public Relations in Dallas, and worker Ann Littman conduct a meeting with hand sanitizer close by. The current flu outbreak can impact businesses with small staffs and hurt a company's productivity.

the states will see their cases increase this year.

There may be even more concern about filness spreading at work after news that a Washington state man traveling in China con-tracted a virus that has killed six people and sickened hundreds more in that country. The man is hospitalized near Seattle.

No wiggle room to Trizila's firm has five employs and no wiggle room when flu hits. Clients expect work to be done no matter what circumstances Dallas-based TrizCom Public Relations is dealing with. Trizila can find herself with 18-hour days to cover her work and a sick staff-er's - she has nowhere else to

"We're not in a position to hire a temp because our jobs are so spe-cific and so creative," Trizila says. "Someone can't lust step in and do

Like many other owners whose work is done on computers and online, Trizila tells staffers they can work from home. But she's re-alistic that chills, sore throat and high fever can wipe out an employ-ee's ability to do any work. "You don't even check your phone, you feel so crummy," she says.

take many owners, Trizila has encouraged staffers to get flu shots. The vaccines are fully covered under many health insurance plans, and some owners arrange for employees to get their shots at work. At Gold Medal, staffers are paid \$25 if they get flu shots although vaccinations are covered under the company's insurance.

But owners often can't require staffers to be vaccinated, says Rick Gibbs, a consultant with human resources provider Insperity. Some employees may be covered by the Americans with Disabilities Act, which prohibits employers from requiring employees to un-dergo medical procedures. However, people who work in health care facilities can be required to be Immunized.

Don't want to stay home Some staffers don't want to stay home if they're sick. Gibbs recom-mends owners appeal to staffers' common sense - it's better for them and their co-workers if they stay home. And if a staffer wants to work rather than lose pay, Gibbs recommends owners rethink their paid time off or sick leave policy; workers are likely to stay home if they know they won't lose pay.

Staffers whose work is done at are at risk not only of spreading the flu, but also catching it. At Christina Clark's Molly Maid home cleaning franchise, some custom-ers who are sick want their homes cleaned and sanitized anyway.

"As soon as we find out someone is sick in a home, we do ask that we reschedule the cleaning until they are feeling better," says Clark, whose company is based in Pensacola, Fla.

Clark contracts with a company to give staffers flu shots at work. If she has several staffers out of once, it makes it harder to do all the scheduled cleaning jobs; it's not the kind of work that Clark can hire part-time workers to do.
"I wouldn't be comfortable with

having someone I didn't know go-ing to a customer's home," Clark

says.
The employees at Vinnie Sposari's Mr. Rooter Plumbing franchise have to be careful about germs year-round. Working with bathrooms, kitchens, drains, sewer lines and septic tanks exposes peo-ple in the plumbing business to the possibility of all kinds of illnesses.

It's standard practice at Sposari's Seattle business for plumbers to put dropcloths down before putting tools on a surface, Sposart says. That's meant to protect staff-

ers and customers. Carol Galle's staffers are continually exposed to germs. Her com-pany, Special D Events, provides services at corporate events; her staffers hand out registration badges at conferences, run errands and help clients and attendees with problems. There's neverending contact: shaking hands, passing ID cards back and forth, borrowing pens and staplers. Galle's 19 staffers are often flying, and planes are known germ carri-

Galle does the best she can to help staffers stay healthy or have an easy recovery. "I have a no-questions-asked policy right now regarding work from home. If you are ill, don't come in," says Galle, whose company is in Ferndale, Mich. When her staffers get sick while running an event, Galle has back-up plans including a network of freelancers who can fill in when someone gets sick. "The show must go on," Galle says.

TRANSITION

From page Bi

der way, but building materiality will take time."

While energy giants explore less, exploration won't end any-

time soon.
"Companies will drill in the hope of finding better resources than those they already have – lower-cost barrels with a higher margin," Tischuk added.

Future exploration will focus on valuable prospects in new and emerging plays around the globe - and less in the United States, the report said. Energy majors such as Exxon Mobil and Chevron are likely to remain in high-impact exploration plays, but national oil companies in the Middle East, China and other regions, which don't face investor

And despite low natural gas prices worldwide, many compa-nies believe probing for cleanerburning gas is critical to the tran-sition to renewable energy. Likewise, more money will be invested in efforts to develop off-

shore wind power capacity, ac-cording to the Norway-based energy research firm Rystad Energy. Its study found that U.S. off-shore wind canacity could much shore wind capacity could reach 20 gigawatts by 2030, potentially 20 gigawatts by 2030, potentially generating annual investments of \$15 billion. Meanwhile, yearly spending on U.S. offshore oil and gas projects is expected to average \$14.8 billion through 2025, Rystad's study found.

Wood Mackenzie predicts that global oil and gas exploration spending could be double that amount, up to \$30 billion, which

nount, up to \$30 billion, which is about the same as last year.

plete 500 to 600 exploratory wells this year, the research firm said. That would add about 15 billion barrels of oil equivalent, in line with industry performance since the last oil bust began in late 2014. But exploration budgets could decline by as much as 15 percent, as companies aim to be more efficient. Much of the oil and gas explo-

ration will remaln in Latin America and South America, from Mexico to Guyana, where Exxon Mobil started producing oil in December, as well as in sub-Sa-haran Africa. French energy maior Total has high hopes for South Africa after making the giant Brulpadda gas discovery in 2019. Total also will drill its giant Venus oil prospect off the coast of Namibia. Royal Dutch Shell and Dallas-based Kosmos Energy also are hunting oll off the coast

"Drilling in Guyana will con-tinue both in the prolific Sta-broek block and beyond it," Tis-chuk said. "In Suriname, were (Houston-based) Apache Corp. made the giant Maka Central discovery at the end of last year, we expect wells on four blocks in

Apache recently formed a joint venture with Total for its offshore Suriname exploration. With added exploration, more

companies are quickly leaving low-risk acreage if they don't have immediate success, Tis-

"Traditionally, majors have held their acreage to the end of term, but we expect them to adopt the swift turnaround ap-proach of their smaller, nimbler cousins," she added. "Many of the areas the majors have added are ultra-frontier, giant blocks,

ments. This trend of fast turnover of new acreage may not be-come apparent in 2020, but Instead materialize in the next three years or so."

And more national oil companies are expected to extend their exploration range worldwide. Qatar Petroleum has sought to go international, and more Chinese firms are exploring in Latin America and Africa.

Also, fewer companies will handle the exploration load. The corporate landscape has fallen by almost 50 percent since 2013. Many of the companies being squeezed out are small independents and private equity-backed companies that lack the cash or the risk appetite to stay in the longer-term exploration game.

L.M. Sixel contributed to this

TUDOR From page Br

nent of natural gas and pow-erful greenhouse gas re-leased during drilling opera-tions. He called on the industry to reduce the burning of, or flaring, of natural gas, which could be used to transition away from coal-fired power plants, among the biggest emitters of carbon dioxide.

We need to publicly

commit to lowering emissions that come from our own businesses," Tudor sald. "I think the (oil and gas) industry is on this, but more needs to be done."

Don't quit, can't quit oil Tudor emphasized that despite much talk of diversifying the local economy and the coming transition from fossil fuels to wind, solar and other renewable energy sources. Houston needs and will confirme to need oil and

gas for at least the next few decades. "We all know that the

central driver to the entergence and establishment of Houston as a leading global commercial and cultural center is the energy sector,"
Tudor said. "The industry
has been very good to Houston."

Energy still makes up 9 percent of the local economy, according to the Greater Houston Partnership, a business-financed economic development group. En-ergy also supports much of manufacturing Houston's industry.

Energy drives almost ev-erything in the local economy, Tudor said, and barring some unexpected technological breakthrough, Hous-ton and the rest of the world will continue to rely on fossil fuels for the coming decades

"I don't have much much sympathy for people who say we need to keep it in the ground," Tudor told reporters after his speech.

The problem with arguments that the oil and gas industry needs to be scrapped is that so much of the world's economy depends on cheap, reliable fuels, Tudor said. Energy has played a key role in development efforts that have lifted mil-

lions from poverty.

"Right now," he said, "the most economical way to get electricity to those people is coal or natural gas."

Nonetheless, he said, executives and boards of directors must begin considering how to address climate change into strategic decisions and corporate governance. Saying the problem is difficult is not an excuse for traction.

"The Industry knows how hard it is to change en-ergy systems," Tudor said. "But that's not enough."

erin.douglas@chron.com Twitter.com/erinmdouglas23

PROFITS

From page B1

of attractive growth opportunities for our company, and we remain focused on positioning Baker Hughes for the upcoming Energy Transition and the digital transformation of the Industry," Baker Hughes CEO Lorenzo Simonelli said during a Wednesday morning investors call.

Since exiting the fracking business, Baker Hughes has banked on making turbines and other ma-chinery for liquefied natural gas plants, as well as focusing on off-shore and international projects. But the company further set itself apart from competitors Schlum-berger and Halliburton with a goal to reduce carbon dioxide emis-sions to a level of net-zero by 2050

- and to turn a profit while doing

so.
To that end, Baker Hughes is buying only electricity derived from renewable sources for its Texas facilities. The company also is developing cost-effective carbon capture and storage technology that can be used by its customers while its Italian-made NovaLT gas turbine has been reconfigured to run on hydrogen, an environmen-tally friendly fuel that emits water

vapor as a waste product.
"While these technologies combined represent a small percent-age of Baker Hughes' overall revenue today, they are products and services that we believe have great growth potential and also provide a strong platform for future prod-uct introductions and carbonbased initiatives with customers," Simonelli said.

Moving 40 percent of the natural gas produced in the United States, Kinder Morgan brought two important projects into ser-vice in 2019 - its Permian Basin-to-Corpus Christi Gulf Coast Expre Pipeline and the Elba Island LNG export terminal in Georgia.

The company has ambitious The company has ambitious plans for 2020. Drawing from a capital budget of \$2.4 billion, Kinder Morgan plans to build the Permian Highway Pipeline to move 2 billion cubic feet of natural gas per day from the Permian Basin of West Texas to the Katy Hub near Houston.

The project is opposed by environmentalists and landowners in the Texas Hill Country, but the company contends that building the 430-mile pipeline will provide an outlet for excess natural gas that would otherwise be burned onsite in an industry practice

onsite in an industry practice known as flaring. Kinder Morgan is in talks with potential customers to see if there is enough interest to build the Permian Pass Pipeline, which could become its third West Texas-

could become its third West Texas-to-Gulf Coast project.

The approach by Kinder Mor-gan and Baker Hughes is getting nods of approval from investors. Kinder Morgan's board of direc-tors has pledged to pay \$1.25 per share to shareholders in 2020, a 25 percent increase over the \$1 divi-dend paid during 2019.

"As our performance continues to indicate, the need for our assets and services has a decades-long runway," Kinder Morgan co-founder and board chair Rich Kinder said in a statement. "Our business segments are extremely well-positioned across our various markets."

Over the past year, James West, an analyst with the New York in-vestment banking advisory firm Evercore ISI, has been pushing oilfield service companies to boost margins on their core businesses. s to boost

Getting out of hydraulic fracturing and betting on natural gas and LNG, West said, was a smart move for Baker Hughes. Meanwhile, the company's other products and digital services promise to tap into a global energy transition from fos-

aground early grains and monitors stil fuels to renewables. "It is clear that they have great growth potential and provide a strong platform for Baker Hughes to introduce new products aligned with the energy transition," West

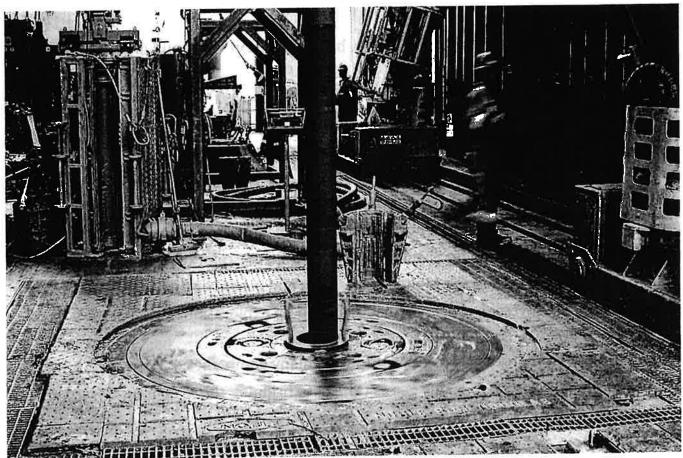
sergio.chapa@chron.com twitter.com/SergioChapa

BUSINESS // ENERGY

Climate change also poses a threat to oil's exploration budgets, report finds

Jordan Blum

Jan. 22, 2020 Updated: Jan. 22, 2020 4:18 p.m.



A drillship off the coast of Guyana in 2018. As the threat of climate change grows, more companies may cut back on exploration.

Photo: CHRISTOPHER GREGORY, STR / NYT

The growing threat of climate change and the evolving transition toward cleaner energy alternatives are threatening spending on traditional oil and gas exploration worldwide, according to a new report.

The largest energy companies are reducing exploration budgets and facing more pressure from shareholders to conduct more exploratory drilling around the

world, even amid growing reserves of oil and gas, according to energy research firm Wood Mackenzie.

"Some investors are questioning the need to explore at all given the vast discovered resource base yet to be developed," said Alana Tischuk, of Wood Mackenzie's global exploration team. "The move from Big Oil to Big Energy is under way, but building materiality will take time."

The major energy giants will explore less, but exploration won't end anytime soon.

"Companies will drill in the hope of finding better resources than those they already have – lower cost barrels with a higher margin," Tischuk added.

Exploration will focus on valuable prospects in new and emerging plays — and less in the United States, the report said. Energy majors such as Exxon Mobil and Chevron are likely to remain prominent in high-impact exploration plays, but national oil companies in the Middle East, China and other regions, which are less exposed to investor concerns, may also step up exploration.

And despite low natural gas prices worldwide, many companies still see exploration for cleaner-burning gas as critical to bridging the transition toward renewable energy.

Globally, Wood Mackenzie projects that 500 to 600 wildcat wells will be completed during 2020 — many in international offshore regions. That would add about 15 billion barrels of oil equivalent resources, in line with industry performance since the last oil bust began in late 2014. Investments should hold steady in the range of \$25 billion to \$30 billion worldwide — similar to the amount in 2019. Exploration budgets could decline by as much as 15 percent, however, as companies aim to be more efficient.

RELATED: Total enters Suriname following deal with Apache

A lot of the exploration will remain in Latin American and South America, from Mexico to Guyana, where Exxon Mobil started producing oil in December, as well as in sub-Saharan Africa. French energy major Total has high hopes for South Africa after making the giant Brulpadda gas discovery in 2019. Total also will drill its giant Venus oil prospect off the coast of Namibia. Royal Dutch Shell and Dallas-based Kosmos Energy also are hunting oil offshore of Namibia.

"Drilling in Guyana will continue both in the prolific Stabroek block and beyond it," Tischuk said. "In Suriname, where (Houston-based) Apache Corp. made the giant Maka Central discovery at the end of last year, we expect wells on four blocks in 2020."

Apache recently formed a joint venture with Total for its offshore Suriname exploration.

With added exploration, more companies are moving out of low-risk acreage positions if they don't have immediate exploration success, Tischuk said.

"Traditionally, majors have held their acreage to the end of term, but we expect them to adopt the swift turnaround approach of their smaller, nimbler cousins," she added. "Many of the areas the majors have added are ultra-frontier, giant blocks, added for minimal commitments. This trend of fast turnover of new acreage may not become apparent in 2020, but instead materialize in the next three years or so."

And more national oil companies are expected to extend their exploration range worldwide. Qatar Petroleum has sought to go international, and more Chinese firms are exploring in Latin America and Africa.

Also, fewer companies will handle the exploration load. The corporate landscape has fallen by almost 50 percent since 2013. Many of the companies being squeezed out are small independents and private equity-backed companies that lack the cash or the risk appetite to stay in the longer-term exploration game.

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Ride-hailing is driving change in American car culture



Americans are thinking about giving up their cars, a once un-fathomable proposition that will change how we get around and diminish the oil industry's fu-

Nearly two-thirds of Amerscars who use a ride-halling service, such as Uber or Lyft, would consider getting rid of their private vehicles within the next decade, according to research by Accenture, the busi-ness consulting firm.

More than 90 percent report high satisfaction with ride-halling, leading many considering

whether to depend on them completely. After all, 95 percent of the time their car is sitting

"This is a service that consum ers love, and it is reshaping the way they look at transportation," said Robin Murdoch, who leads Accenture's global software and platforms practice, "We're on this evolutionary path."

The average American house-hold spent \$70 on taxis and

Tambinson continues on Bo



modified for autonomous seen in Pittsburgh in

HOUSTON CHRONICLE · WEDNESDAY, JANUARY 22, 2020 · SECTION B ★★

● DOW: 29,196.04, down 152.06 (-0.5%) | ● S&P: 3,320.79, down 8.83 (-0.3%) | ● OIL: \$58.34, down 20¢ (-0.3%) | ● NATURAL GAS: \$1.91, down 9¢ (-4.7%)

Halliburton CEO foresees shale challenge

Oil field service company loses \$1.7 billion in final quarter as crude and gas prices stall

By Sergio Chapa

The capital-intensive U.S. shale industry is facing its biggest challenge since a 2015 downturn that resulted in dozens of companies filing for bankrupt-cies, billions of dollars in losses and tens of thousands of layoffs as oil prices sputter, producers ck and Wall Street investors become unwilling to float

the bill, the CEO of the Houston oll field services company Halli-burton said.

A decade of horizontal drilling A decade of horizontal drilling and hydraulic fracturing made the United States an energy pow-erhouse again, but crude oil pric-es stuck in the \$50-to-\$60 per barrel range over the past year have made shale unprofitable for most companies, resulting in substantial cuts to drilling and fracking activity in shale plays

from Texas to Pennsylvania and North Dakota. That situation has placed tremendous pressure on ollfield service companies to slash prices for their products and services.

Halliburton, the world's second largest oil field service company and the dominant player in pany and the dominant player in North American shale, reported Tuesday that it lost \$1.7 billion in the fourth quarter and \$1.1 billion for all of 2019. Just four days before, Schlumberger, the largest oilfield service company in the world, reported a \$10.1 billion

Shale continues on B9



Halliburton employees move pipe in 2017 in Midland. CEO Jeff Miller says conditions for the new year rival the 2015 downturn.

Quick Chapter 11 expected for firm

Streamlined process may help McDermott emerge in 9 months

By Sergio Chapa STAFF WRITER

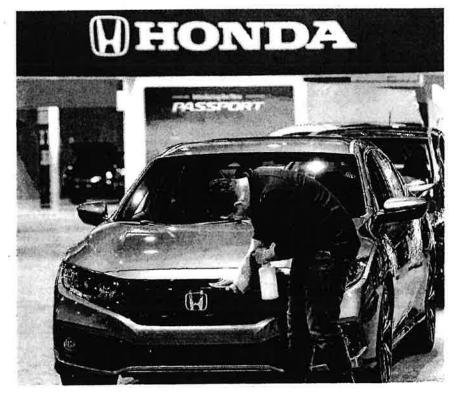
Houston oil field service company McDermott International could spend as few as nine months in Chapter II bankruptcy and emerge with half of its debt wiped off the books, preliminary documents

The company filed a copy of its prepackaged Chapter it bankruptcy plan with the U.S. Securities and Ex-change Commission on Tuesday morning. The plan, which has the support of two-thirds of its credi-tors, would allow McDermott will receive more than \$2.8 billion in fi-nancing and shed \$4.6 billion of its \$9.2 billion in debt. Expected to be filed on Tuesday

evening with the U.S. Bankruptry Court in Houston, McDermott agreed to sell its Lummus Technol-ogy business for refineries and pet-

hemical plants to the New York McDermott continues on B6

HOUSTON AUTO SHOW



USAA's annual bonus dips again

Disaster claims in 2019 cited in firm's fifth year of decline

By Patrick Danner STAFF WRITER

USAA employees Tuesday saw their annual bonus decline for the fifth straight year, most likely be-cause of 2019's severe weather and an onslaught of customers' damage claims.

The San Antonio insurer and financial services company awarded workers a 14.5 percent bonus for 2019, down from the 14.8 percent bonus for 2018. This year's performance pay is the smallest since 2008 when employees received a 13.5 percent bonus.

The peak bonus over the last de-cade was 18.8 percent in 2012.

The company's annual bonus announcement, made both interand externally, almost has be-come a public rite.

For USAA workers, it's the mo-ment they know exactly how much

extra they'll have for vacations, USAA continues on B6

Kevin Romero wipes down various Honda models on display at the automaker's exhibit during setup Monday for the Houston Auto Show at NRG Center. The 37th annual event, which begins Wednesday, is the largest auto show in Texas.

Can Auto Show drive new sales?

Dealers hoping expo will rev up interest in vehicles

By Paul Takahashi

Local car dealers anticipate the Houston Auto Show will rev up buyer interest as new vehicle sales have sputtered amid rising sticker prices. Hundreds of shiny new

cars, trucks and SUVs rolled into the cavernous NRG Center on Monday as organizers began setting up for the 37th annual show, which starts Wed-nesday and runs through Sunday.

Some 100,000 people



100,000 people are expected to attend the expo.

are expected to attend the five-day expo, which will showcase about 700 vehi-cles from nearly 40 manu-facturers. The Houston Au-to Show, organized by the Houston Automobile Deal-ers Association, is the largest in Texas, both in atten-dance and manufacturer

representation.
"We want to get people excited about all the new body types and the latest technology out there, and get them inspired to get into something new," said RoShelle Salinas, the

Show continues on Bo

SHALE From page B

loss in 2019. "The U.S. shale industry is facing its biggest test since the 2015 downturn," Halliburton CEO leff Miller said during a Tuesday morning investors call.

The bulk of the losses for the companies came from writing down the value of past acquisitions and equipment.

Crude oil prices were trading above \$100 per barrel before falling off a cliff in July 2014 before hitting bottom at about \$26 a barrel in early 2016.

The industry had largely recovered by 2018, but but plunge in prices at the end of that year rippled throughout the shale

A warm winter and a global supply glut have since resulted in both crude oil and natural gas prices remaining below break even prices for most shale producers.

Too much gear, staff

During the Halliburton investors call, Miller said there is still too much equipment and too many hydraulic fracturing crews operating in U.S. shale ba-

Like others in the oilfield service sector, Halli-burton is responding to the situation by pulling



Halliburton ris a bed billion loss for the year, says CEO Jeff Miller.

equipment and crews from the field, lowering its exposure to shale and focusing on more profitable lines of work such as digital technology as well as offshore and overseas

projects.
Closing locations and laying off hundreds of workers in the United States over the past year have meanwhile resulted in \$300 million of annual savings, the company re-

Halliburton is starting the year with 22 percent hydraulic fracturing horsepower, but 95 perof its fleet is being used by paying customers, which, Miller said, promises to improve margins and

"Halliburton is no stranger to navigating choppy waters." Miller said. "We will continue to do what we do best, collaborate and engineer solutions to maximize our customers' asset value while generating industry-leading returns and sustainable cash flow for our shareholders."

Analysts' praise The company's cost-cutting measures for shale won praise from analysts.

"Halliburton, from our vantage point, is checking all of the boxes in responding to the new demands on part of the investors as the industry pivots from the unrestrained pursuit of growth to allocating capital more judiciously, Bill Herbert, an analyst with the Houston investment bank Simmons Energy, wrote in a Tuesday afternoon research note.

lames West with the York Investment banking advisory firm Evercore ISI said the changes will allow Halliburton to turn down unprofitable work, stack more equipment, restructure its operations in North America and drive prices

We applaud the company for being decisive and its willingness to quickly adapt to maturing North American market conditions," West wrote in a research note. "The strategy is clear - continue to provide the technology and service quality to en-able customers to maximize their asset values. generate industry leading returns and produce sig-nificant cash flow."

Halliburton's stock fell 19 cents to close at \$23.77 a share.

sergio.chapa@chron.com twitter.com/SergioChapa

SHOW

From page Br

show's executive vice pres-

ident.
The industry could use a little step on the gas. The Auto Show comes as sales have slipped since the post-recession peak of 2015, when Houston-area dealers sold a record 376,481 new vehicles.

Local dealers reported selling 292,606 new vehi-cles in 2019, down 4 percent from the previous year, according to the Tex-Auto Facts Report from InfoNation, a Sugar Land-based automobile data provider. Sales fell short of the 300,000 benchmark, which represents a good sales year for dealers in the Houston region.

Nationally, automakers sold 17.1 million new vehicles in 2019, down 1.2 percent from the previous year. Experts forecast 16.9 million new vehicles will be sold in 2020.

"We had a pretty decent December, but it wasn't enough to push over the 300,000 mark," tion President Dan McDowell said of Houston sales.

Sales of new vehicles nationally are slowing as ris-ing sticker prices and inter-est rates have pushed Americans to drive their cars longer or turn to the used-car lot. The average age of a vehicle on the road today is almost II years old, and shoppers can save an average of \$15,000 by buy-ing a 3-year-old used vehi-

cle instead of its brand new counterpart, according to Edmunds, a Californiabased automobile data

New technology, info-tainment systems and safety features, such as lane-departure warning sys-

ly last month hit \$38,312, up from around \$35,000 five years ago, according to InfoNation. Sedan prices in December averaged \$33,556 while SUVs and

Nationally, the average new vehicle price hit a near-record high of \$38,377 in December, up from \$33,773 five years ago, according to Edmunds.com.

five years ago.

"Dealers are looking to springboard from the auto show to pique the public's interest and boost sales,"

tems, that now come standard on modern vehicles are driving prices up, Mc-Dowell said. The average retail price of a new vehicle sold local-

trucks averaged \$40,288.

Automakers have sweet ened deals to draw buyers to dealership lots. The annual percentage rate on new financed vehicles averaged 5.4 percent in December, down from 5.9 percent a year earlier, Al-though interest rates fell for the third month in a row, hitting a 22-month low, rates are still above the 4.4 percent mark reached

McDowell said.

This year's Auto Show will feature a range of all-new vehicles, such as the all-electric Ford Mustang



Allen Wendell, a Nissan detail technical specialist, prepares a Nissan Leaf electric car for the Houston Auto Show at NRG Center on Monday. Manufacturers are featuring about 10 electric vehicles there this year.

Mach-E, the 2021 Kia Seltos and the Porsche Taycan, which is also all-electric. Attendees will be able to test drive more than 80 vehicles, including Jeep and Ram trucks. In addition, more than 50 classic cars from as far back as the 1920s, will be on display to draw enthusiasts.

New this year will be a section showcasing elec tric vehicles. Manufacturers are featuring about 10 electric vehicles at the show this year, including the Nissan Leaf, Kia Niro and the Audi E-Tron.

The Auto Show does not allow vehicle sales on site. Rather, the show is intend-

TOMLINSON

From page B1

ed to allow busy families to touch, feel and test-drive new vehicles without the hassle of visiting multiple dealerships and negotiat-

ing financing terms.
Tony Gullo, chairman of the Auto Show for 36 years. said he expects the expo will help accelerate sales over the coming months.

"All in all. I think 2020 is going to be a good year," Gullo said, "The stock market is strong, and unemployment is at an all-time . There's no reason why it shouldn't be a good

paul.takahashi@chron.com twitter.com/paultakahashi



Brandon Shafer with Eagle Management Group mops the flooring for the Mazda CX-30 exhibit.

LIFE TRIBUTES

VONNIE JO ADAIR

1931-2020

nie Jo Pecht Adair was born at borne on Octob 25th, 1931 in Houston, Texas. She passed away on January 20th, 2020 at

January 20th, 2020 at home at the age of 88. Survived by spouse, Billy, 6 children, 9 grandchildren, 3 step grandsons and two great granddaughters.

MARY LOUIS ROTHERMEL MURPHY KISTER

ide-hailing in 2018, up from \$20 in 2015, accord-1928-2020 ing to the Bureau of Labor Mary Louis Rother-Mary Louis Rother-mel Murphy Kister, a native Houstonian passed away on Sunday, the 19th of January 2020. She was 91 years of age. A more specific and detailed notice will be published in Sunday's edition. Please visit Mrs. Kister's Statistics, Most of that increase came from digital taxi services. Ride-halling companies

frequently say self-driving cars will be critical to their long-term profitability. A



enabled by high-speed 5G data links, he said, will "redefine cars into a new entertainment space, where customers can be immersed in the content they love."

One day in the not-so distant future, Americans in big cities will use their phones to summon a selfdriving, electric car that will envelop them in a space where they can

Funeral Services will be held on Thursday, January 28rd at Trinity Lutheran

Church, 5201 Spring Cypress Rd, Spring, Texas. Viewing at 1°0 and Services begin at 11 a.m. Visitation will be from

5-8 p.m. on Wednesday, January 22nd at Addisons Funeral Home, 18630 Kuykendahl Rd., Spring, TX 77879. in licu of flowers please make contributions to Trinity

Lutheran Church Special Music fund or Lutheran Social Services of Texas.

AUBREY MEYER FARB



rey Meyer Farb, 97. ssed away on Sunday, Janu ary 19, 2020.

A memorial service will be held on Wednesday, Janu-ary 22, 2020 at 1:80 PM at Congregation Emanu El, 1500 Sunset Blvd. Houston,

TX 77005. For more information visit www.JewishFuneralsTx.com

Houston Jewish Funerals 5455 Parkerend, Bellah Vin redomination (211h/de/2257

online tribute at www.Geo. HLewis.com where words of memories and condolences may be shared electronically with her family.



GEO. H. LEWIS & SONS EWIS COM, 713 NAL 30

(Comp)

RRIAN SCOTT NIMTZ

1967-2020

Brian Scott Nimtz, 52, passed away on January 20, 2020. For more information, please visit www.cyfairfuner-als.com

Cypress Fairbanks Wild hear feed - 151,457, 800 ; Wild hear feed - 151,457, 800 ; Wild hear feed for the feet -

Share Memories. **Photographs** Online

When a loved one passes, fami when a loved one passes, tarnal and friends find comfort in sharing remembrances. Take part at chron.com/oblits by signing an online guest book and uploading your own photo of your loved one at no charge. Be part of a circle of comfort at chron.com/obits.

HOUSTON CHRONICLE

tew years ago, Americans found the idea of autonomous cars horrifying. Today, more than half say they would ride in a selfdriving vehicle tomorrow, if they could, Accenture

Autonomous vehicles aren't ready yet, but another way to reduce costs is to switch to electric vehicles, which are 60 percent cheaper to operate, the Energy Department says. Get rid of both the driver and the gasoline, and a \$10 ride would cost \$2, Accenture found.

"When you layer on top electrification and vehicle autonomy," Murdoch said, "obviously that's going to massively change how we move around."

These are two components of an idea I first wrote about three years ago known as ACES, which stands for autonomous, connected, electric and shared. Accenture's survey shows consumer attitudes are changing as companies develop the technology.

Automakers, long wor-ried about the end of Individual car ownership, have begun developing "mobil-ity as a service" business models. Many are teaming up with ride-halling com-

Car makers offered 50 plug-in electric models in



Attendees look at the Audi AIME self-driving concept vehicle at the CES tech show in Las Ve

2019 and will add 14 more 100 percent electric vehi-cles in 2020. By 2021, manufacturers will offer eight all-electric pickups.

These changes are having a limited impact on the oil industry, for now, said Muosit Ashraf, senior managing director for energy at Accenture Strategy. Studies show ride shar-ing has not reduced the total number of miles traveled and could increase it by 30 percent if prices go down.

In the long term, though, oil companies will need to radically transform as electric vehicles become common, Ashraf added. Growing urbanization and population density also will create congestion, limit parking and reduce travel distances, encourag-ing adoption of shared, electric vehicles.

There's also an overall shift in people's behaviors

socially in terms of going from owning things to wanting more experiences," Ashraf said. "That is going to have an impact on

car ownership." Recent technological roadblocks have deflated optimism for a quick rollout of autonomous cars. Computers are good drivers; they just can't antici-pate human idiosyncrasies But tech companies will get there, Sony CEO Ken-ichiro Yoshida promised. "I believe the next me-

extrend will be mobility, as ehicles become more connected, autonomous. shared and electric in the coming years," Yoshida told the Consumer Electronics Show in Las Vegas

earlier this month. Yoshida introduced new sensors and Image-processing technology at the conference, but he made the biggest splash with a Sony concept car. Vehicles enjoy their tavorite music or the latest television show. Taxi services will roll out these features over the next few years.

Ride-hailing companies eventually will need to make a profit, but, accord-ing to Accenture, more than half of consumers feel no loyalty to a particular brand.

To make money, ridehalling companies will need to differentiate them selves, build brand loyalty and raise prices to gener-

ate decent profits.

Lyft is allowing riders to request an electric vehicle, and Uber is offering cash Incentives to some drivers to switch to electric vehicles. Smart drivers will offer 5G connectivity to passengers. Taxi services will get help from cities and states that are increasing tolls and taxes to make car ownership less

Rather than owning our own gas-guzzling, living room on wheels to commute around town, we'll be renting someone else's electric version.

Tomlinson writes commentary about business, economics and policy. pena.y. chris.tomlinson@chron .com twitter com/citamlinson

Winter white can thrive into spring. PAGED



Rockets to face Lakers in battle of titans. PAGECT

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MLK JR. DAY

'TAKE ME TO THE KING': KIDS ECHO ICON IN



Photos by Elizabeth Conley / Staff photographe Finalist Sean Gair dances as the Salvation Army Harbor Light Choir sings "Celebration" and the judges tally the scores during the Martin Luther King Jr. Oratory Competition, where a dozen 4th- and 5th-grade finalists took the stage Friday.

Students draw inspiration from civil rights leader in competition

By Dylan McGuinness

The announcement came over the school's audio system around 2:15 p.m., earlier than usual, Brandon Curbow told a crowded Antioch Missionary Baptist Church on Friday.

Elementary The Crespo Elementary School student recalled the students moving to the corner of the



Brandon Curbow, from Crespo Elementary School, flashes a winner's smile as he receives his first-place award and \$1,000.

room and his teacher placing a cover over the window so an in-truder wouldn't be able to see in. The rules and procedures were laid out in the school's lockdown

That's what Brandon remem bered hoping "the longest three minutes of my life" was: a drill,

not something more sinister.
"I don't believe Dr. King would have imagined that schoolchild-ren are taught to huddle in the corner to protect themselves from active shooters," he said. "I don't believe that Dr. King would have imagined that this would be our America in 2020, but it is."

MLK contest continues on A10

Trump expands defense team for his trial

Starr, Dershowitz join president's legal case for acquittal in Senate

By Elise Viebeck, Josh Dawsey and Manuel Rolg-Franzia

WASHINGTON - The team of lawyers expected to guide President Donald Trump toward an election-year acquittal in the Sen-ate expanded suddenly Friday to Include Kenneth Starr and Alan Dershowitz, two of the biggest gal celebrities of the 1990s, who have drawn attention with their television appearances and in-volvement in Jeffrey Epstein's defense against charges of child pros-titution in the mid-2000s.

Starr, the independent counsel who investigated President Bill Clinton, and Dershowltz, the Harvard Law emeritus professor who advised the defense team in football star O.J. Simpson's murder tri-al, were announced as the newest al, were announced as the newest members of Trump's defense. The group will also include former Florida Attorney General Pam Bondi and former independent counsel Robert Ray, according to Jay Sekulow, one of Trump's personal attorneys, who will lead the defense with the White House counsel Pat Cipollone.

The four new lawyers were selected personally by Trump for their political-legal celebrity and vocal defenses of the president in the media — and despite the signif-

the media – and despite the signif-icant professional baggage that several of them bring to the impeachment saga.

Trump faces possible removal from office after the House impeached him last month on charges of abuse of power and obstruction of Congress. He is expected to survive the trial, thanks to the

Trump continues on A9

Schlumberger's \$10.1B loss may signal trouble for Houston